

# Central Valley Flood Protection Board Update

**July 22, 2016**

Presented by:

Michael Mierzwa, P.E.

[Michael.Mierzwa@water.ca.gov](mailto:Michael.Mierzwa@water.ca.gov)

Lead Flood Management Planner

California Department of Water Resources

# Today's Discussion

## Where We've Been

- How Investment Actions Contribute to Intended Outcomes

## Where We Are

- Effectiveness of Management Actions in Achieving Flood-Specific Outcomes

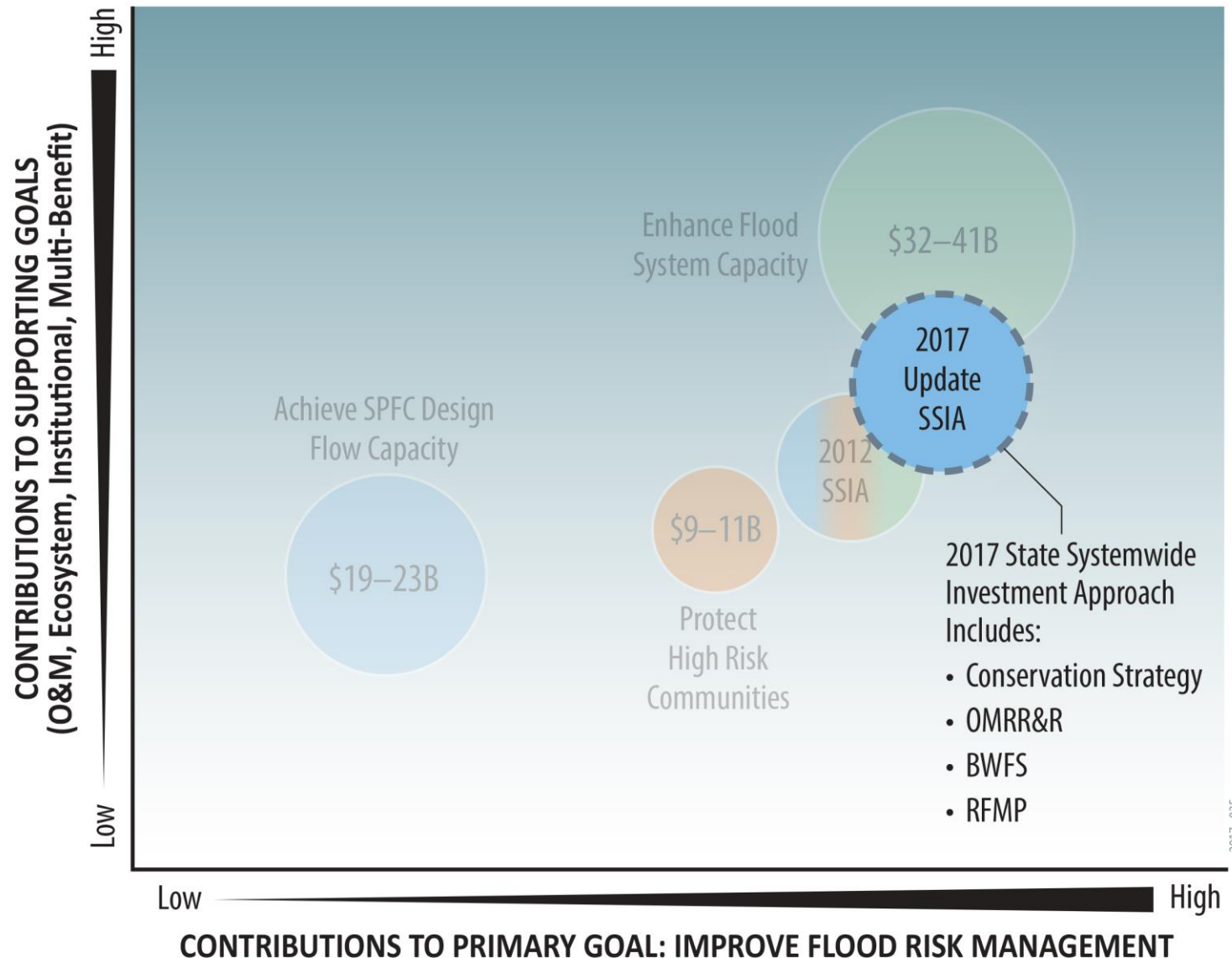
## Where We're Going

- CVFPP State Systemwide Investment Approach Refinements

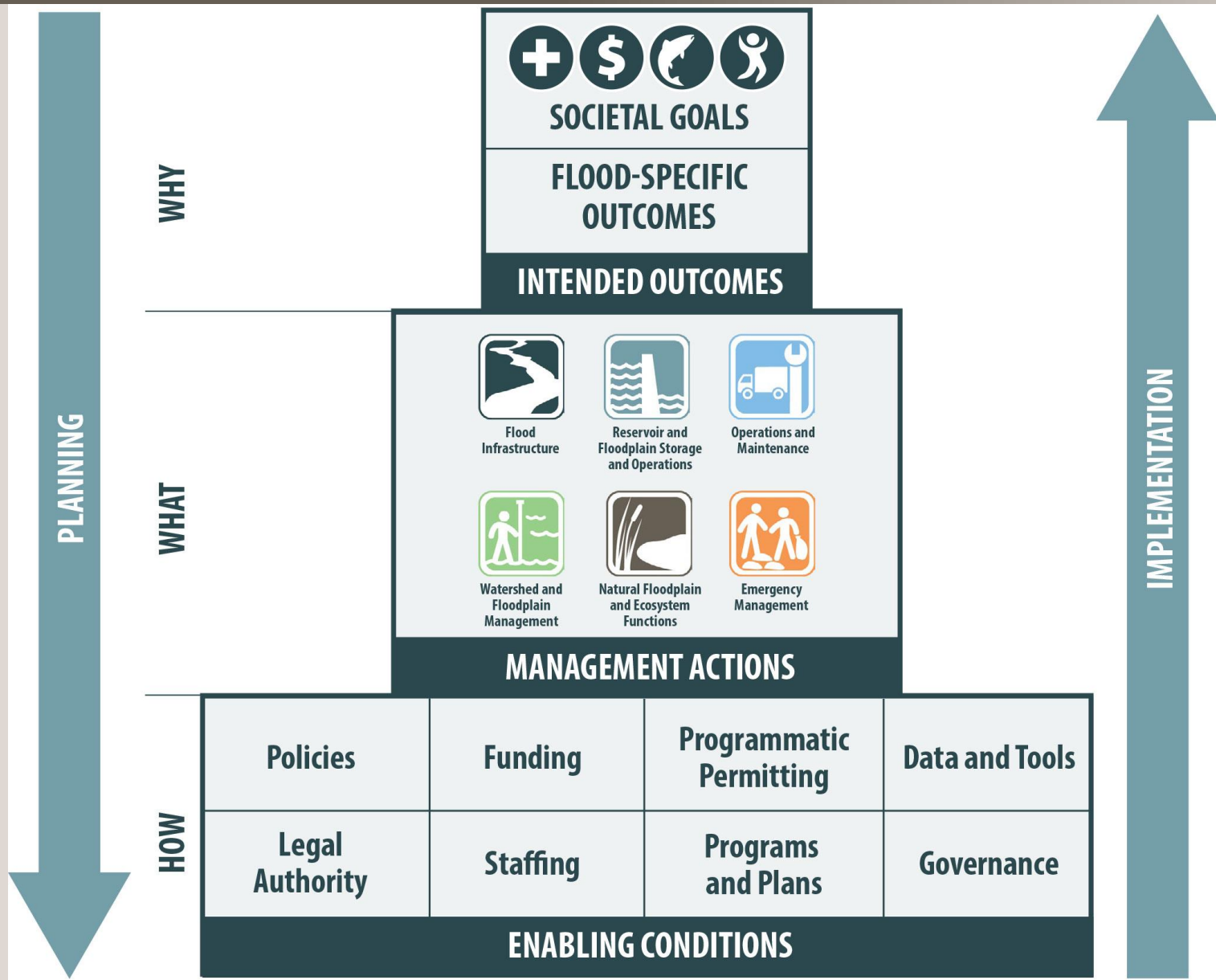
# Where We've Been

## How Investment Actions Contribute to Intended Outcomes

# Refinements to the State Systemwide Investment Approach in 2017



# Interacting Levels of Flood Management



# Where We Are

## Effectiveness of Management Actions in Achieving Flood-Specific Outcomes

# Resilient Flood Risk Management ...

- Manages across *all* components of risk
- Increases resiliency by directing resources toward actions that:
  - limit exposure
  - reduce vulnerability
  - maintain system flexibility and adaptability
- Reconciles flood risk management with functioning ecosystems and other economic and social benefits
- Helps justify and establish stable, long-term funding

# Flood Specific Intended Outcomes



Minimize lives exposed to potential flooding



Reduce human vulnerability to oncoming floodwaters



Increase system performance in populous areas



Minimize economic exposure to potential flooding



Reduce economic vulnerability to damages when flooding occurs



Increase system performance for economically developed areas



Produce or maintain economic benefits on floodplains



# Flood Specific Intended Outcomes



Generally promote ecosystem function



Increase the quantity of functional floodplain and associated riverine habitats



Increase and maintain the abundance and diversity of floodplain dependent native species



Provide recreational benefits























































































































Support societal / aesthetic values



Education and public awareness






Protect significant farmland

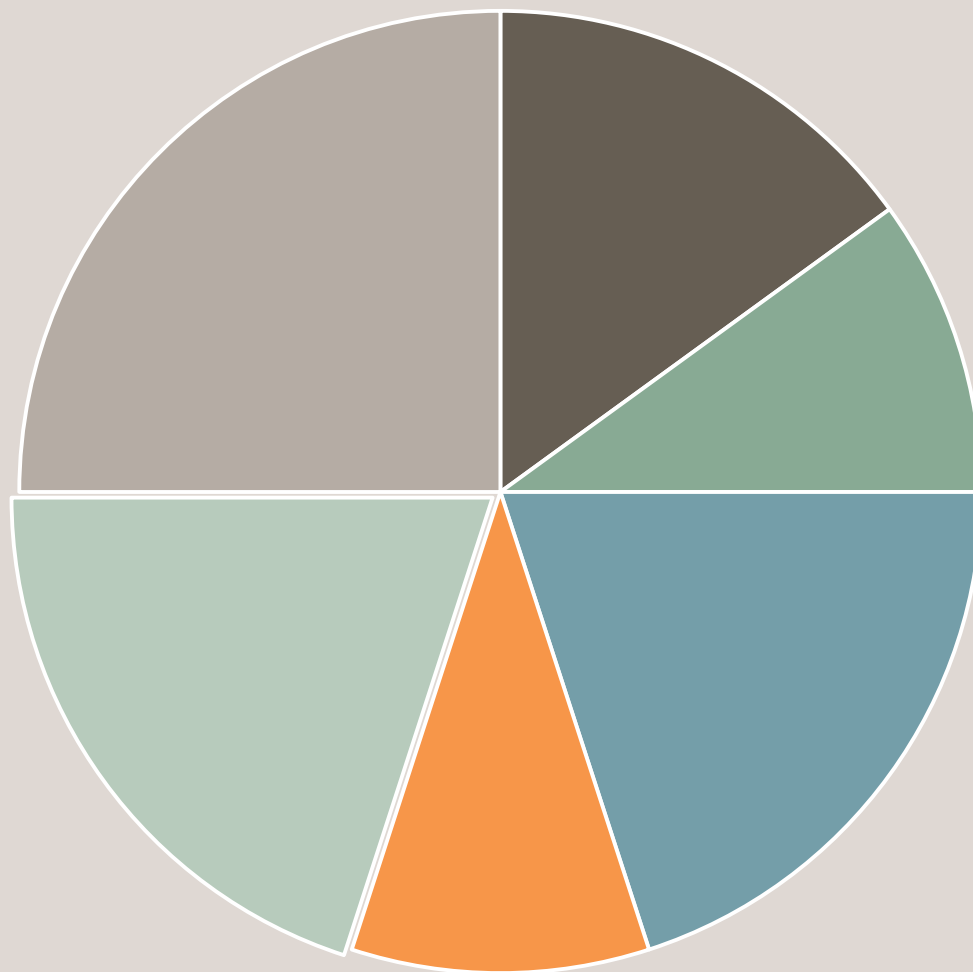
SOCIETAL GOAL	 Public Safety	 Economic Stability	 Ecosystem Vitality	 Enriching Experiences
FLOOD-SPECIFIC OUTCOME	  	   	  	   
RURAL CAPITAL IMPROVEMENTS				
Levee and Infrastructure Improvements	  	   	  	   
Setbacks, Bypasses and Floodplain Storage	  	   	  	   
Land Acquisitions and Easements	  	   	  	   
Habitat Restoration / Reconnection	  	   	  	   
RURAL ONGOING IMPROVEMENTS				
Risk Awareness, Floodproofing and Land Use Planning	  	   	  	   
Studies and Analysis	  	   	  	   
Routine Maintenance	  	   	  	   



## KEY

-  Potential for significant contribution to this outcome
-  Potential for moderate contribution to this outcome
-  No potential to contribute to this outcome

# Conceptual Rural Management Action Investment Portfolio



- Levee & Other Infrastructure
- Setbacks, Bypasses, and Floodplain Storage
- Ag Easements and/or Land Acquisitions
- Habitat Restoration
- Risk Awareness, Floodproofing, and Land Use Mgmt
- Routine Maintenance

# Role of 2017 CVFPP Update

- Refines and updates the State Systemwide Investment Approach (SSIA)
- Additional specificity about recommended near and longer-term investment and financing approach
- Broad guidance about more resilient risk management



# Where We're Going

## CVFPP State Systemwide Investment Approach Refinements

# Physical and Operational Elements in SSIA

FLOOD MANAGEMENT ELEMENT	PROJECT LOCATION OR REQUIRED COMPONENTS	ACHIEVE SPFC DESIGN FLOW CAPACITY	PROTECT HIGH RISK COMMUNITIES	ENHANCE FLOOD SYSTEM CAPACITY		STATE SYSTEMWIDE INVESTMENT APPROACH
Urban Improvements						
Target 200-Year Level of Protection	Selected projects developed by local agencies, State, federal partners		YES	YES	→	YES
Target SPFC Design Capacity	Urban Levee Evaluations Project results	YES <sup>2</sup>				

*2012 CVFPP Table 3.2 Major Physical and Operational Elements of Preliminary Approaches and State Systemwide Investment Approach*

# 2017 Refinements to SSIA

2012 SSIA		2017 SSIA Refinements	
Flood Management Element	Project Location or Required Components	Management Action Categories Used in 2017 CVFPP	Summary of Refinements in 2017 CVFPP Update
<b><i>Urban: Capital Improvements</i></b>			
Target 200-year Level of Protection	Selected projects developed by local agencies, State, federal partners		Potential urban improvements updated considering implementation progress for State-federal projects during last 5 years and recommendations of RFMPs
Non-SPFC Urban Levee Improvements	Includes approximately 120 miles of non-SPFC levees that are closely associated with SPFC urban levees. Performance of these non-SPFC levees may affect the performance of SPFC levees	Levee Improvements; Other Infrastructure Improvements	

*2017 CVFPP Update Table 3-1 Refinements to Physical and Operational Elements in the State Systemwide Investment Approach*

# Central Valley Flood Protection Board Update

**July 22, 2016**

Presented by:

Michael Mierzwa, P.E.

[Michael.Mierzwa@water.ca.gov](mailto:Michael.Mierzwa@water.ca.gov)

Lead Flood Management Planner

California Department of Water Resources